GRANT APPLICATION MANUAL

ENERGY INNOVATIONS SMALL GRANT PROGRAM

August 2002

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LIST OF ATTACHMENTS

Mail completed grant applications to appropriate address below. Commission and EISG Program Administrator staff welcome your comments and suggestions for improving this manual at any time. Please contact us if you have any questions or comments about these materials.

Address if sent by US Post Office

EISG Program Administrator
San Diego State University Foundation
5250 Campanile Drive, MC1858
San Diego, CA 92182-1858

Physical address for FedEx, UPS or hand delivery

EISG Program Administrator
6495 Alvarado Rd., Ste 103
San Diego, CA 92120

Contact Information

Phone: **(619) 594-1049**
Fax: **(619) 594-0996**
Email: **eisgp@energy.state.ca.us**

Note: Proposals must **not** be mailed or delivered to the Energy Commission offices in Sacramento, California.

Applicant Notification List

We recommend that all individuals or organizations that intend to submit a proposal to the **current** solicitation register their email address with the EISG Program Administrator in order to receive notification of any late changes to the application process. To register, send an email to eisgp@energy.state.ca.us and request your email address be added to the "Applicant Notification List". Contact information will only be retained for the current solicitation and must be renewed for each solicitation you intend to apply.

EISG Solicitation Notification

Individuals and organizations that desire to receive an email notification of future EISG solicitations or all Energy Commission funding solicitations should go the EISG web page at www.energy.ca.gov/research/innovations and go to the section titled "*How can I be notified of future EISG Solicitations*?". Follow the instructions for registering your email address with either the EISG Solicitation Notification List or the Energy Commission Opportunity ListServer.

The California Energy Commission, through its program administrator, is offering grant funding to projects **that determine the feasibility of energy research and development concepts relating to the Public Interest Energy Research (PIER) Program.** This manual provides the information needed to establish applicant eligibility and to complete the application package. In addition, this manual describes key program features related to proposal evaluation, approval, grant contracting, as well as assistance available to applicants during the application process and to grantees during the performance of grant projects.

This manual is revised periodically to address changes to the grant application process. Applicants must use the current version of the Grant Application Manual that is posted with the EISG solicitation on the EISG Solicitation web page (www.energy.ca.gov/contracts/smallgrant) where it is available for viewing and downloading in both PDF and Word 7.0 format. A paper copy of this manual is available from the EISG Program Administrator upon request. Requests may be submitted via email, fax or US mail (see page ii for contact information).

Part 1 answers the commonly asked questions about the program; Part 2 contains additional information regarding program features and requirements; Part 3 includes the application forms, and instructions for applying for grant funding; and Part 4 contains information pertinent to the Grant Agreement.

Part 1. COMMONLY ASKED QUESTIONS ABOUT THE ENERGY INNOVATIONS SMALL GRANT (EISG) PROGRAM

This part answers commonly asked questions about the Energy Innovations Small Grant Program to help you determine whether or not to apply for funding.

What is the difference between the Energy Innovations Small Grant (EISG) Program and the Public Interest Energy Research (PIER) Program?

The EISG Program is a component of the Public Interest Energy Research (PIER) Program that is managed by the California Energy Commission (Commission). The purpose of the PIER Program is to provide benefit to California electric ratepayers by funding energy research, development and demonstration (RD&D) projects that are not adequately provided for by competitive and regulated energy markets. Approximately $62 million per year is collected from electricity ratepayers for the PIER Program.

The Commission recognizes the need for a program to support the early development of promising new energy technology concepts, a niche not covered by PIER general solicitations that focus primarily on development of established concepts. The Commission established the EISG program to meet this need. In addition, to encourage participation in the program, the process for soliciting, evaluating and awarding grants has been simplified and streamlined.

Who can apply for grants?

Participation in the EISG program is restricted to the following groups:

1. **Individuals:** Must be acting independently. If employed or affiliated with an organization, applicant must have authorization from the organization to pursue project development exclusively as an individual with no rights reserved to the organization. The individual, not the organization, retains all intellectual property rights accrued from the grant project.

2. **Small businesses:** EISG Program uses the Federal definition of small as specified in Title 13, Code of Federal Regulations, Part 121 (13 CFR § 121), Small Business Size Regulations (http://www.sba.gov/regulations/siccodes/). Size requirement varies based on type of business with the average requirement being either prior year gross receipts of $5 million or total employees cannot exceed 500.
3. **Non-profit organizations:** Possess IRS tax exemption. Non-profit organizations that are already under contract to the Energy Commission to perform PIER related work outside of the EISG Program are prohibited from applying to the EISG Program.
4. **Academic institutions:** Public or private postsecondary institution.

Federal agencies, federal laboratories or Federally Funded Research and Development Centers (FFRDCs) are not eligible.

The Energy Commission reserves the right to limit participation in a particular solicitation to one or more of the four applicant groups and/or to limit the subject area to one or more of the six PIER program areas in order to meet overall program objectives. If a solicitation is restricted by applicant type or subject area it will be clearly identified in the solicitation notice published on the EISG Solicitation web page (www.energy.ca.gov/contracts/smallgrant/index.html).

How much funding is available for each grant and the program?

The maximum amount of any individual grant award will be $75,000, including required research facilities or technical expertise assistance. Approximately $2.0 million per year of PIER funds are allocated to EISG grants.

Are matching funds and repayment of the grant required?

There are no matching funds or repayment requirements associated with the EISG Program. However, cost sharing is encouraged and is a consideration in the evaluation process.

What projects are eligible for funding?

Proposals must meet **all** of the following criteria to be eligible for consideration under the EISG program: (a) the project must advance science or technology not adequately addressed by competitive and regulated markets; (b) propose an original innovative solution to a significant energy problem; (c) propose work that is still in the proof-of-concept phase; (d) address a California market need; (e) provide a clear potential benefit to California electricity ratepayers and (f) target one of the six PIER program areas listed below.

1. Industrial/Agriculture/Water End-use Efficiency
2. Building End-use Efficiency
3. Environmentally Preferred Advanced Generation
4. Renewable Generation
5. Energy-Related Environmental Research
6. Strategic Energy Research

A detailed description of the program areas can be found on the Commission web site at www.energy.ca.gov/research/documents under the section titled “Draft Documents for PIER”. While the documents are still in draft form, they are being used to define the acceptable subject areas provided the proposed work does not include any of the ineligible activities listed in the next section. Please note that citing a reference in the PIER Research Plans is not sufficient evidence by itself of a market need for a specific energy concept.

Within each of the six program areas, specific issues have been identified that are of particular interest to California. The issues for each program area can be viewed on the web by going to http://www.energy.ca.gov/research/PIER/pier_stage2.html. EISG proposals are not required to address specific PIER research issues since the EISG Program was designed to remain open to all new technologies that may not have been previously considered as potential solutions to California's energy problems. However, EISG funded projects that do not clearly address one or more of the PIER research issues are unlikely to receive follow-on funding within the main PIER Program unless a major technological breakthrough was made that causes the Commission to modify the research issues to include the new technology.

What projects are not eligible for funding?

The following types of research and activities are **NOT** eligible for EISG funding:

1. Advanced development of concepts already proven feasible
2. Science or technology advances adequately addressed by competitive and regulated markets
3. Full scale prototyping when subscale or bench testing would be more appropriate
4. Transportation related energy projects
5. Planning and policy studies
6. Data gathering and reporting activities
7. Marketing and promotion activities
8. Market, literature or technology assessments/surveys
9. Technology demonstrations of existing technologies for public outreach/education
10. Product development, testing or validations normally done after research
11. Commercialization or certifications (e.g., UL Listing)
12. Research that is not PIER related and has no clear market connection
13. Meta-analysis studies
14. Gas research with little or no connection to electric generation/end use (innovations capable of shifting significant peak electric load to natural gas will be considered)
15. Research that does not propose a clear solution to an existing energy problem
16. Research that seeks to identify a new energy problem or further define an existing energy problem with no focus on proving feasibility of a research concept
17. Software development with no research or validation component

The proposals that are most competitive are the ones that are centered on hardware development and include bench scale or subscale prototyping and physical testing to establish concept feasibility. Proposals that seek to establish theoretical feasibility through computer modeling and simulation without validation are acceptable but not as competitive. Applicants that are in doubt about the suitability of a particular subject area or type of research are encouraged to submit an informal 1-3 page pre-proposal abstract to the EISG Program Administrator for evaluation prior to submitting a full application. See Part 2. A. for additional details.

Can I submit more than one proposal in a solicitation?

Individuals, small businesses and non-profit organizations can submit up to two proposals per solicitation. Academic institutions and their Foundations can submit no more than two proposals from any one principal investigator. Multiple projects cannot be proposed in a single application. If more than two proposals are submitted the Program Administrator will accept the first two received or the first two logged in if more than two are sent in the same package and will return the remaining proposals to the applicant.

When can I apply and how are grant applications processed?

Proposals will only be accepted by the EISG Program Administrator between the time an active EISG Solicitation Notice is posted on the program's solicitation web page and the proposal cutoff date specified in the solicitation. Grant applications received by the Program Administrator before 5 PM on the cutoff date will proceed to initial screening as shown in Diagram 1 which depicts the selection process

How can I obtain technical assistance with a project?

Applicants may request assistance from the Program Administrator in locating laboratory facilities or technical experts that would serve as team members or subcontractors on the project. The Program Administrator may provide recommendations but it is the responsibility of the applicant to negotiate the financial arrangement with the individuals/business or laboratory facilities and to reflect that cost in the proposed project budget. We recommend that all key arrangements with team members, contractors and facilities be made prior to submitting a proposal for evaluation since that will accelerate the award process if selected for funding. However, applicants that need assistance in locating technical experts, subcontractors or laboratory facilities may submit a proposal in which those elements are left unidentified with appropriate funds allocated to the missing elements in the budget. If the proposal passes initial screening and it is determined that the missing elements are such that an adequate technical evaluation could still be performed, the Program Administrator will send the proposal out for technical review. If the proposal is eventually recommended for funding the award will be delayed until the missing elements are identified and negotiated and all revisions submitted and approved by the Program Administrator.

How long does it take to receive project funding?

It takes approximately five to six months after the cutoff date to complete the proposal evaluation, approval and agreement execution process. Grant agreements may be in place with Awardees within four weeks of the Commission final approval of project funding if no delays are encountered. Project research may begin as soon as the grant agreement is fully executed by the Program Administrator.

How long do I have to complete a project?

The period of performance on a grant project cannot exceed 12 months. All deliverables, including the Final Report, must be received during the stated term of the grant agreement. Request a term long enough to ensure that you will not need a term extension on the back end. Term extensions are not automatic and require written justification and may adversely impact future follow-on funding decisions. Projects need to be appropriately scoped to not exceed 12 months and if this is not possible then the project may not be suitable for the EISG program.

Who do I contact for more information?

If you have any questions regarding the EISG Program, please contact the EISG Program Administrator:

EISG Program Administrator
San Diego State University Foundation
5250 Campanile Drive, MC 1858
San Diego, CA 92182-1858
Phone: (619) 594-1049
Fax: (619) 594-0996
Email: eisgp@energy.state.ca.us

In addition, questions addressed to the EISG Program Administrator that have broad applicability to applicants will be posted. Please look at the "Frequently Asked Questions" section in the EISG Program area of the Commission web site located at www.energy.ca.gov/research/innovations. Please review this section periodically for updates.

Part 2. ADDITIONAL INFORMATION REGARDING PROGRAM FEATURES AND REQUIREMENTS

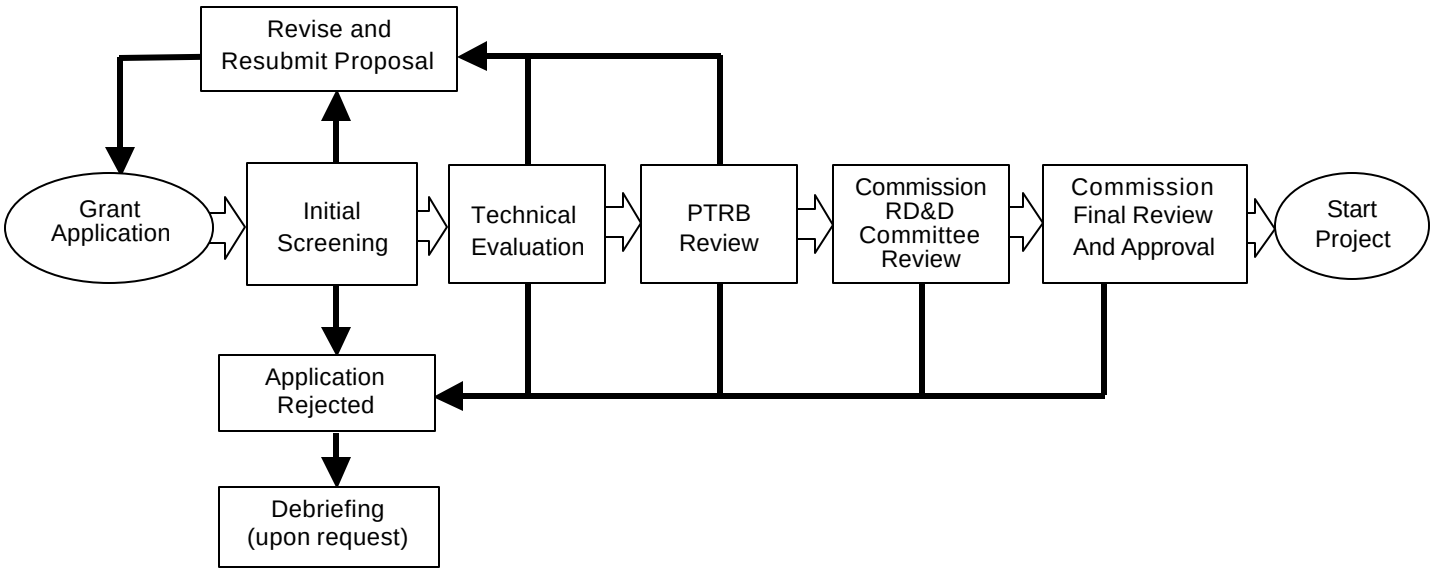
A. Pre-proposal Abstract

Applicants may email, fax or send through regular mail a pre-proposal abstract (no specified length or format - typically 1-3 pages) to the EISG Program Administrator for an evaluation of the project's subject area and research objectives to determine if it is suitable for the EISG Program. The preferred method of transmission is by email (**eisgp@energy.state.ca.us**) as an attached file (MS Word or PDF) or embedded in the body of the email. Assistance provided to the applicant as part of this pre-proposal process serves two purposes: (1) to help the applicant avoid the effort of preparing a full application on a topic that would fail initial screening; and (2) to provide suggestions that would strengthen the proposal in the technical evaluation process. The benefits of number 1 can be achieved with a fairly short abstract whereas the benefits of number 2 increase directly in proportion to the number of project details provided. Assistance and advice provided during this process is no guarantee that the proposal will pass initial screening. Initial screening decisions are based on a review of the full proposal, not on pre-proposal abstracts. Pre-proposal abstracts may be submitted at any time up to the pre-proposal abstract cutoff date specified in the posted solicitation notice. All pre-proposals received will be reviewed in the order received and will receive a response usually within two weeks of submission. If a pre-proposal abstract is submitted close to the pre-proposal abstract cutoff date we will make every effort to turn them around within one week.

B. Grant Application Processing

Grant applications will be processed in the following phases (as outlined in Diagram 1):

Diagram 1: Grant Project Selection Process



1. Grant Application.

Grant applications received by the EISG Program Administrator before 5 PM on the published cutoff date will enter the screening/evaluation process.

2. Initial Screening.

EISG Program Administrator staff will perform an administrative pass/fail review based on the criteria listed in Table 1 below.

Table 1: INITIAL SCREENING CRITERIA

CRITERIA	SCORE
1. Proposed research targets one or more of the six PIER program areas	PASS/ FAIL
2. The proposal provides a clear vision of a market connection in California for the proposed technology that would benefit the grid connected electric consumers.	PASS / FAIL
3. Proposal provides sufficient information to assess technical merit and the potential impact the proposed innovation would have on the targeted energy problem	PASS / FAIL
4. Does not propose research or activities listed as ineligible in Part 1 of this manual	PASS / FAIL
5. Originality of proposed research is supported by comparison to the current state of the art to include: existing products, processes, services and prior research findings	PASS / FAIL
6. Proposes research that does not violate the known laws of science	PASS / FAIL
7. Proposed research is designed to explicitly prove concept feasibility	PASS / FAIL
8. Proposed research is not adequately covered by the competitive market	PASS / FAIL
9. If the goal of the proposed research is to achieve a CA mandated performance objective (e.g., emissions, energy efficiency, SEER rating, etc.) it must exceed the next projected performance target to be eligible	PASS / FAIL
10. Certifications satisfy financial, legal and other requirements	PASS / FAIL
11. Form F is complete and indicates the proposed work is in the appropriate stage of development for the EISG program.	PASS / FAIL
12. Resubmitted proposals adequately address deficiencies noted in prior evaluation	PASS / FAIL
13. Application package is complete (all required forms are completed correctly)	PASS / FAIL

Applications are placed in one of the following four categories after the initial screening:

1. Satisfies criteria and proceeds to Technical Evaluation.
2. Fails criteria, not eligible for resubmission for reasons that cannot be corrected by revision (notification letter will include the deficiencies identified).
3. Fails criteria, eligible for resubmission in a future cycle if revised to address noted deficiencies (notification letter will include the deficiencies identified).
4. May proceed to technical evaluation only if satisfactory clarifications regarding missing data or technical detail are received by the PA no more than 5 working days after receipt of request.

3. Technical Review (TR).

Technical reviewers may be from academia, industry or government. The applicant may recommend qualified technical reviewers that are independent from the project team and who are capable of conducting an unbiased evaluation with no conflict of interest. Recommendations are advisory in nature with final reviewer selection resting with the EISG Program Administrator.

Applications that pass the initial screening will be scored by two to five technical reviewers with recognized expertise in the proposed subject area. The technical review will focus primarily on the proposal's technical merit. Technical reviewers will score each proposal on the degree to which it meets each of the Technical Criteria listed in items 1-8 in Table 2. Scores from multiple technical reviewers will be combined to form a single composite score with a maximum of 50 points. The composite scores will be used to establish the proposal's preliminary rank order that is presented to the Program and Technical Review Board (PTRB). Proposals that receive a composite score below 26 from the technical reviewers will not be eligible for funding in the current cycle and therefore will not advance to the PTRB. In order to provide additional information to the PTRB, the technical reviewers will be asked to comment on (1) market connection and (2) similarity to pre-existing or concurrent research.

Table 2: TECHNICAL REVIEWER (TR) SCORING CRITERIA AND ALLOCATED POINTS

TECHNICAL CRITERIA	Points
1. Does the proposed research target an important energy problem?	4
2. Will the proposed innovation significantly impact the targeted energy problem?	4
3. Is the scientific approach sound and sufficient to determine concept feasibility?	4
4. Is the proposed research original and innovative and adequately supported by comparison to the current state of the art to include: existing products, processes, services and prior research findings?	4
5. Is the proposed concept practical?	3
6. Are the project team members qualified to perform the proposed work?	3
7. Are the amount and use of funds requested appropriate for the work proposed?	3
8. Overall technical merit (taking all factors into consideration)	25
Maximum Technical Reviewer Points:	**50**
ADDITIONAL QUESTIONS	**Yes/No**
1. Does the proposal provide a reasonable vision of a market connection in California for the proposed technology that would benefit the grid connected electric consumers?	
2. Based on your knowledge of the proposed line of research, is there a high probability that the same or similar research is already being funded by industry?	

4. Program and Technical Review Board (PTRB)

The PTRB is tasked with screening and scoring of the proposals that remain eligible after technical review as well as reviewing the EISG Program policies, procedures and documents and making recommendations for changes to the Energy Commission's RD&D Committee.

Approximately 12 weeks after the proposal cutoff date the PTRB meets to screen and score the proposals that received a TR composite score of 26-50. The PTRB is allocated a maximum of 50 points based on the criteria and scoring weights shown in Table 3. The PTRB will first review all available information on each proposal (proposal, PA input, TR comments and PTRB input) and determine if the proposal still satisfies all of the screening criteria listed in Table 1. Proposals that fail one or more of the screening criteria will be disqualified from further consideration in the current cycle and will not be included in the Final Rank Order of proposals. When the PTRB disqualifies a proposal the board will also determine if the proposal is eligible for resubmission in a future cycle. Proposals that pass PTRB screening will be scored by the PTRB in accordance with the criteria shown in Table 3 below.

Table 3: PTRB SCORING CRITERIA AND ALLOCATED POINTS

CRITERIA	PTRB
Technical Merit Criteria	**10**
1. Is the scientific approach sound and sufficient to determine concept feasibility?	
2. Is the proposed research original and innovative and adequately supported by comparison to the current state of the art to include: existing products, processes, services and prior research findings?	
3. Is the proposed concept practical?	
4. Are the amount and use of funds requested appropriate for the work proposed?	
5. Are the project team members qualified to perform the proposed work?	
Programmatic / Policy Criteria	**10**
1. Does the proposed research target an important energy problem?	
2. Will the proposed innovation significantly impact the targeted energy problem?	
3. Does the proposed research provide a potential benefit to CA electric consumers?	
4. Does a viable market connection exist for the proposed innovation?	
5. To what extent is the proposed research already covered by competitive markets?	
6. Is the project at an appropriate development stage for an EISG grant?	
Overall Merit (taking all factors into consideration)	**30**
Maximum PTRB Points:	**50**

5. Final Rank Order and Funding Recommendations.

The PTRB scores are added to each proposal's prior composite score to establish each proposal's final composite score (max. 100 points). The final composite score is used to create the final rank ordered list of proposals. Based on available funding and the quality of the top ranked proposals the PTRB will recommend one or more funding cutoff lines. The funding recommendations are forwarded to the Energy Commission's RD&D Committee.

6. Research, Development and Demonstration Committee (RD&D Committee)

The RD&D Committee will review the PTRB grant recommendation process to ensure it is based on fair and unbiased procedures. Based on the PTRB recommendations and Energy Commission program considerations, the RD&D Committee may make a funding recommendation to the full Commission. The RD&D Committee may disapprove any or all grant project recommendation(s) for any or all of the following reasons:

- The project is counter to the development and implementation of a robust public interest RD&D portfolio of projects that address California's energy needs by focussing on the RD&D plans covering the PIER subject areas;
- The project is counter to the objective of balancing risks, timeframes and public benefits in a manner consistent with California's energy policies;
- The project is counter to the objective of creating a public interest RD&D knowledge base and disseminating information that will allow citizens, businesses, government and other entities to make informed decisions concerning energy technologies and services;
- The project is counter to the objective that the public interest RD&D program is connected to the market;

- The project is counter to the energy policies of the State of California[1].

Any proposal disapproval will not affect the score of any other proposal. The RD&D Committee will exercise its discretion in deciding whether or not to forward a funding recommendation to the full Commission Business Meeting.

7. Energy Commission Business Meeting

The list of grant projects will be considered for approval at a regularly scheduled business meeting. The Commission reserves the right to reject any or all of the grant project recommendations.

The Energy Commission, based on recommendations of the Energy Commission's RD&D Committee, will consider funding for a specified list of grant projects. Energy Commission approval of grant projects is anticipated to occur within 20 weeks of a particular solicitation cutoff date. Another two to four weeks is required to execute grant agreements on projects that received funding approval.

Projects that receive full Commission approval for funding will be posted on the EISG Program area of the Commission web site within five business days after the business meeting action and will receive an award letter within one to two weeks.

C. Unfunded Proposals

Applicants whose proposals were not funded will receive a letter from the Program Administrator that summarizes the proposal's current status and whether or not the proposal is eligible for resubmission. If the proposal had advanced to technical review the letter will include the proposal's relative standing and copies of the technical reviews. Proposals that either fail initial screening three times or that advanced to technical review in two solicitations and were not selected for funding, are not eligible for resubmission. Proposals that are classified as ineligible for resubmission may be contested in writing to the Program Administrator.

All materials submitted in response to an EISG solicitation become the property of the State of California for disposition purposes. Except for a file copy that is retained for future reference, all extra copies of the grant application will be shredded at the end of the evaluation process.

D. Grant Applicant Feedback and Disputes

An applicant may obtain a debriefing regarding an unfunded proposal in the following two ways:

1. By calling the Program Administrator to discuss the proposal.

2. By submitting a written (letter or email) list of questions or issues within 30 days of receiving the status letter on the proposal in question. If an applicant desires to contest a decision made by the Program Administrator or PTRB related to failing one or more screening criteria or eligibility to resubmit, the rebuttal to the decision must be in writing. The Program Administrator will respond to written inquiries in writing (letter or email) within 30 days.

[1] Policies for PIER and for energy in California are expressed in legislation. AB 1890 (Chapter 854, September, 1996), SB 90 (Chapter 905, October, 1997), Warren-Alquist Act (CEC Publication No. P160-98-001), and in CEC policy reports (e.g., June, 1997 "Strategic Plan Report on Implementing the RD&D Provisions of AB 1890; P500-97-007," 1997 California Biennial Energy Plan (P105-97-001).

E. Resubmitted Proposals

Applicants who desire to resubmit a proposal that was not funded in an earlier solicitation must satisfy the following requirements:

(a) Receive a status letter from the Program Administrator that states that the proposal is eligible for resubmission.

(b) Submit 9 copies of revised proposal and indicate on Form A, Item h, of grant application, the proposal number(s) assigned to prior submission(s) related to the same concept.

(c) Provide a resubmission summary (5 pages max.) in table or outline format that identifies and responds to the concerns noted in the previous evaluation of the proposal (see sample table format below).

SAMPLE RESUBMISSION SUMMARY

Concerns	Response	Page
1) Project team lacks experience in fuel cells.	Added Dr. Smith to team; see attached resume.	Form E
2) Theory of operation was not explained with sufficient technical detail to enable assessment of its technical merit.	Expanded technical description of theory of operation.	Pg 4-5
3) The material to be tested was already evaluated by Dr. Smith.	*Rebuttal*: Dr. Smith only tested for properties A & B whereas this project will look at properties C& D.	N/A

A resubmission summary that fails to adequately address all significant concerns noted in the prior evaluation will be sufficient grounds to **fail initial screening**. The resubmission summary pages do not count against the allowed page count for the narrative or appendices. In most cases, resubmitted proposals that had advanced to technical review are sent back to the original technical reviewers for rescoring based on the additional information.

F. Policy Regarding Follow On Funding

The EISG Program was designed to serve as a one-time funding source for projects seeking to establish initial concept feasibility. The EISG Program is currently not accepting proposals for follow-on funding, however, the main PIER Program will continue to accept proposals that are responsive to formal solicitations. Past performance on an EISG grant will be a consideration in any future request for funding through the PIER Program.

G. Modifications

To make a project acceptable, the Commission or Program Administrator retains the right to negotiate minor changes to a proposal's work statement and/or budget at any time during the evaluation, approval and agreement execution process. Such modifications would be made to:

- Adjust the project scope to produce the information needed to assess concept feasibility,
- Adjust project budget to comply with guidelines related to authorized expenses;
- Avoid duplication of work;
- Reduce administrative requirements; and/or
- Include tasks necessary for project success.

Projects that require major changes will be sent back to the applicant for revision with the option to resubmit in a future cycle.

H. Intellectual Property Rights

Copyrightable material and all patent rights for inventions conceived or first actually reduced to practice in the course of the grant project will be the property of the Awardee subject to the State retaining certain limited use rights (see Model Grant Agreement document for details). The Awardee must disclose to the EISG Program Administrator, on a confidential basis, all such inventions. All materials submitted in the performance of the grant will become the property of the State of California for disposition purposes. The EISG Program Administrator will take reasonable precautions to protect the intellectual property rights of the applicants and Awardees by requiring all personnel who handle, screen or review proposals and deliverables containing proprietary/confidential information to sign a non-disclosure agreement (see sample non-disclosure agreement attached to the end of this manual).

Part 3. GRANT APPLICATION INSTRUCTIONS

A. Grant Application Package Checklist

The full application will serve as the official submittal to the EISG Program Administrator that will be formally evaluated and scored. Include all information necessary to adequately review the proposal, including all information requested in this Manual. Do not incorporate by reference information contained in the pre-proposal abstract, videotapes or in other materials. The evaluation of the final application will be the basis for approving or denying funds for the proposed project.

The application package must be **assembled in the order shown in the checklist below**. Additional instructions for filling out the forms are provided with each form.

Mail nine (9) full copies (original plus 8 copies) including any supporting documents.

Original copy should be bound only with a spring clip. Remaining copies should be bound only with a staple in the upper left corner. **No covers or other types of bindings are allowed**.

- ☐ Form A: Grant Application Cover Page *(signed and dated)*
- ☐ Project Summary *(1 page max., insert page break after project summary)*
- ☐ Statement of Work (outline format, 1 page max., insert page break after SOW)
- ☐ Project Narrative *(10 page max.)*
- ☐ Appendices to Narrative *(optional - 10 page max.)*
- ☐ Form B: Certifications
- ☐ Form C: Project Schedule / Deliverables
- ☐ Form D: Proposed Budget Summary *(attach short budget narrative if required)*
- ☐ Form E: Project Personnel
- ☐ Key Personnel Resumes *(A maximum of two pages per person/organization. Required for PI and Project Manager if they are separate individuals, optional for other team members.)*
- ☐ Form F: Stages and Gates Assessment (2 pages max. on supporting document)

The following items should be loose or clipped to cover letter and not bound with the proposal copies

- ☐ Cover Letter *(optional)(one copy)*
- ☐ Form G: Recommended Reviewers *(optional)(one copy)*
- ☐ Form H: Recommended Reviewer Disqualification *(optional)(one copy)*
- ☐ Resubmission Summary *(5-page max.) (Resubmits only-see Part 2.E. for details)(6 copies)*
- ☐ Briefing slides for PTRB *(optional –see Part 3.F for details) (3 slides max.)(1 paper copy only)*

Final applications that do not include at least one (1) signed original and eight (8) copies or have not been received by the EISG Program Administrator office by 5:00 PM on the advertised cutoff date will not be included in the current evaluation cycle. No faxed or emailed copies will be accepted.

B. Project Summary

Provide a one-page summary description of the grant project. Format requirements include: margins no less than 1", font size no smaller than 12 pt. and single or double-spaced. Title the page with "Project Summary" followed by the project title and name of the principal investigator. The project summary should summarize the key items requested in the recommended narrative format specified in Part 3.D. The project summary needs to be on it own dedicated page.

The description should be written at a level that could be understood by the general public with sufficient information to stand on its own. Although the technical review will be performed on the entire proposal, the project summary may be all that some board and committee members see when exercising their review functions at the later stages of the review process. The project summary may contain proprietary information. If a proprietary proposal is selected for funding you will be asked to provide a non-proprietary version of the project summary for web publication.

C. Statement of Work

The Statement of Work must conform to the format specified in this section. Provide a 1-page Statement of Work in outline form that identifies the project goal, project objectives, project tasks and reporting requirements detailed below. The physical format requirements include: margins no less than 1", font size no smaller than 12 pt., single or double-spaced. Title the page with "Statement of Work" followed by the project title and name of the principal investigator. The Statement of Work needs to be on its own dedicated page.

Project Goal: The goal statement must identify the specific feasibility issue(s) being addressed in this project. The goal statement must start with the words "*The goal of this project is to determine the feasibility of…."*. The following are some sample goal statements:

(1) The goal of this project is to determine the feasibility of using a segmented gas turbine surface burner to increase combustion stability across the full operating range to further reduce emissions.

(2) The goal of this project is to determine the feasibility of using a torque based airflow measurement device to more accurately measures airflow in ventilation systems.

(3) The goal of this project is to determine the feasibility of a low cost circuit design that allows central air conditioners with three phase motors to operate on single-phase power with a 10% energy savings.

Project Objectives: Project objectives must be measurable or knowable. **Measurable objectives are mandatory in all projects in which measurable objectives are possible.** The project objectives serve as benchmarks that determine project success and serve as the foundation of the Final Report. Knowable objectives should be limited to only those that represent a **significant** benchmark to the success of the project. In some cases the benchmarks are performance or cost targets that you know you must hit in order to have a successful marketable product even if you cannot predict the performance or costs in advance. Objectives can specify a range of performance from minimally acceptable to anticipated maximum. **All measurable objectives must be validated from the data generated during the grant project.**

The following are some sample "Knowable" project objectives:

(1) Fabricate a 5kW prototype device.

(2) Identify optimal operating parameters related to temperature, pressure, flow rate etc.

(3) Develop a model and computer simulation of the proposed process.

The following are some sample "Measurable" project objectives:

(1) Demonstrate NOx emissions of less than .5 lb/MW-hr (emission targets must be in lb/MW-hr).

(2) Demonstrate an engine efficiency between 45-55%.

(3) Demonstrate that the proposed process generates at least twice the amount of methane (2 scf) per kg of volatile solids as the current state-of-the-art process (1 scf).

Project Tasks: This should be a list of the primary tasks to be completed in the project. Include a subtask breakdown if necessary for clarity. All primary tasks identified should also be listed in the Project Schedule (Form C).

Reporting Requirements: Under this heading enter the statement "*Submit Progress Reports and Final Report in accordance with the proposed Project Schedule.*"

The Statement of Work may contain proprietary information. If a proprietary proposal is selected for funding you will be asked to provide a non-proprietary version of the Statement of Work for web publication.

The following is the required format for the Statement of Work:

Statement of Work

Project Title

PI Name

Project Goal: *(e.g., the goal of this project is to determine the feasibility of using a supercritical water gasification process to convert sewage sludge to fuel gases.)*

Project Objectives:

Objective 1: (e.g., fabricate a bench-scale supercritical water gasification device that simulates the heat recovery steam generator tubes in a gas turbine combined cycle plant.)

Objective 2: *(e.g., demonstrate that 96% of the carbon in a sewage sludge slurry containing 23 wt% solids can be converted to gas.)*

Objective 3: (e.g., verify that no significant erosion, corrosion and deposition occurs inside the bench-scale system.)

Project Tasks:

Task 1:

Subtask 1.1:

Subtask 1.2:

Task 2:

Subtask 2.1:

Subtask 2.2:

Reporting Requirements:

Submit Progress Reports and Final Report in accordance with the proposed Project Schedule.

D. Project Narrative

Provide a project narrative that is no more than 10 pages in length (not counting reference list or acronyms list) that describes the project plan in detail. Key supporting documents referenced in the narrative such as photos, charts, drawings, blueprints, graphics, letters of support and excerpts from key articles may be included as appendices to the project narrative. Appendices are restricted to a maximum of 10 pages. Layout requirements for the narrative include: margins no smaller than 1", font size no smaller than 12 pt, single or double-spaced and pages must be printed single-sided. The project narrative must address the content items identified in the following recommended outline, however the sequence in which the information is presented may be determined by the applicant. Project narratives that cite past research, trade publication articles, etc. must include a reference list and if the project narrative contains acronyms an acronym list needs to be included.

Project Narrative

1) Project Goal
   (a) Briefly describe the concept feasibility issues that will be addressed in the project. If this grant project feeds into a larger development effort provide a brief explanation of how this work fits into the overall development goal.
2) Project Objective(s)
   (a) Discuss the specific project objectives that were identified in the Statement of Work.
2) Energy Problem Targeted
   (a) Identify the energy problem that is being addressed.
   (b) If the proposed research targets a PIER research issue identify the connection.
3) Impact on Energy Problem / Benefit to California electric market
   (a) Quantify the potential impact to the electric consumer in terms of savings due to reduced cost per kWh, reduced kWh consumption, emissions reduction, increased reliability, improved product features etc.

(b) Quantify the potential benefit in terms of energy and cost savings to the state of California as a whole.

4) State-of-the-Art
   (a) Summarize the relevant results of a current literature/Internet search. Point out where your work will extend the existing knowledge base. This is a very important area that can make or break a proposal in the evaluation process.
   (b) Compare existing products, processes, and/or services that perform the same or similar functions as the proposed concept. Clearly show the relevant differences (i.e. cost, reliability, efficiency, functions etc.). Recommend comparison data be placed in table format when practical.
5) Technical Feasibility Issues
   (a) Identify the technical obstacles that this project seeks to overcome.
6) Proposed Innovations
   (a) Identify the specific innovations that will be tested in this project. The more creative and innovative the proposed solutions the more competitive the proposal.
   (b) Provide sufficient technical details to assess the concept's technical merit. This includes drawings and illustrations where appropriate to supplement written descriptions.
7) Primary Tasks
   (a) Provide a description of the work required to accomplish the primary tasks.
8) Market Connection
   (a) Identify who would adopt, benefit, manufacture, sell or buy the results of the innovation if proven feasible.

Applicants should take into consideration the evaluation criteria listed in Part 2.B. when writing the narrative. Applicants are encouraged to obtain letters of support from industry that express interest in the technology being proposed since such letters hold significant weight when evaluating the concept's market potential, particularly when the proposed concept targets a narrow market niche or proposes an unconventional alternative to existing technologies. Market connection can also be supported by trade journal articles, market surveys or letters of support from members in the target market (architects, home owners, building contractors, HVAC contractors, manufacturers, etc.) who are familiar with the concept being proposed.

E. Stages and Gates Assessment

Grant applicants are required to complete Form F "Stages and Gates Assessment" as part of the grant application. Instructions are provided on the form and additional background information on Stages and Gates is contained in the document titled "EISG Stages and Gates Process" that is available for download from the EISG solicitation page on the web at www.energy.ca.gov/contracts/smallgrant.

The Public Interest Energy Research (PIER) program, which includes the EISG program, has adopted a customized variation of the Stages and Gates Process which serves many purposes, one of which is to assist the EISG Program Administrator in selecting and managing research projects more effectively to increase the probability of the research benefiting California electric ratepayers. The process improves communications among all parties by providing a common language for describing development status both at the time of application and at the end of the project. The Stages and Gates Process is built on a foundation of best practices from the RD&D community across the country. It integrates three parallel,

but interdependent streams of activities - technical, business, and administrative - needed to develop a product from its initial conception through RD&D to market launch and the market place. These activities are integrated such that progressively better information about the project and the product - market potential, customers' needs and wants, public benefits and costs, and technical feasibility - are provided at each stage of the process.

Proposals submitted to the EISG Program, to be competitive, need to show evidence that the activities associated with Stages 1 and 2 have been completed and the primary focus of the project is to establish technical feasibility associated with Stage 3. Upon completion of an EISG research project, the EISG Program Administrator will perform an independent development stage assessment to determine the current status of the development effort with the primary focus being on Stage 3 activities. This assessment will be based on the Final Report and on information delivered during the performance of the project. EISG projects that intend to seek follow-on funding through PIER need to successfully complete Stage 3 engineering/technical objectives and show coordinated development in the remaining activities for Stage 3 to remain competitive.

F. Briefing Slides

Proposals that pass initial screening and score 26 and higher in technical review will be briefed to the PTRB members prior to their scoring. Grant applicants have the option to provide up to 3 paper slides (B&W or color) that can serve as a visual aid to assist the PA staff in briefing the project to the board members. Pictures, drawings or graphical representations of complex designs or processes are most useful. Word slides are of little value and may not be used. Since the technical reviewers will not see the slides they should not be referenced in the proposal unless the slides came from the proposal. This is the applicant's opportunity to provide information that would help the board members to quickly visualize the work being proposed. A color camera overhead projector will be used to project the paper slides which cannot exceed 8.5" x 11" in size. They can be in either landscape or portrait orientation.

G. Proprietary Information

If the proposal contains proprietary information, as indicated on Form A, Item g., then the applicant must clearly mark those sections in the application that are proprietary (all nine copies). This could be in the form of a classification stamp at the top and bottom of classified pages or boxes placed around specific paragraphs or annotations in the margin that clearly identify those sections that are proprietary. Applicants are encouraged to limit the proprietary information to only that which is necessary to adequately assess the technical merits of the proposed concept. Classifying an entire proposal as proprietary is not acceptable.

Appropriate procedures to safeguard proprietary or confidential information will be employed by the EISG Program Administrator, the Commission, its subcontractors and technical reviewers.

H. Budget Narrative

Attach a short budget narrative to Form D (Proposed Budget) to breakout any expenses listed in lines 3.a. – 3d (travel, facilities lease, equipment rental, equipment purchase). Line 3.d. (Equipment Purchase) is reserved for items with a unit cost greater than $5,000. Equipment and supplies with a unit cost less than $5,000 are itemized under line 3.f. and therefore not included in the budget narrative. If an indirect expense is charged, indicate in the budget narrative how it was calculated. Explain any unusually large budget items.

I. Unauthorized Expenses

The following costs are generally NOT allowed in EISG projects:

- Costs incurred by applicants in preparing proposals (including travel and personal expenses), project debts or costs incurred before Commission approval and the effective date of the grant agreement.
- Costs for lobbying or attempting to influence any public official.
- Costs associated with protecting intellectual property.
- Cost to offset obligations of individuals or work not associated with the approved project.
- Procurement of general-purpose equipment (e.g. general-purpose computers, software, fax machines, copiers, office furniture and tools) that could be leased or rented at lower cost.
- Cost of news releases announcing the results of an EISG project.
- Relocation costs of employees or staff members.
- Financial aid, scholarships, or fellowships, except when paid under established campus policy as part of the compensation for research performed in the EISG project during the term of the contract.

J. Allowed Direct Expenses

1. Salaries, Wages and Fringe Benefits

Labor expenses accrued by the Awardee and team members during the term of the grant agreement are allowable to the extent that they meet the following criteria:

(a) The compensation is reasonable for each individual's skill level and experience and conforms to consistently applied compensation policies of the individual's organization.
(b) Fringe benefits are allowable as a direct cost (if not included as an indirect cost) in proportion to the salary charged to the grant and provided the expense is based on formally established and consistently applied compensation policies of the individual's organization. If a student receives compensation for hours worked and tuition fees show the tuition as a separate line in Section 1 of Form D (Proposed Budget). Applicants who apply as an "*Individua*l" cannot charge Fringe and should show a fully loaded hourly rate instead.

2. Consultant Services

Payments to consultants are allowed provided the costs are reasonable and commensurate with the services provided and are included and itemized in the approved budget for the grant. There are no restrictions on who an applicant can subcontract with or how much work may be subcontracted out provided the subcontracts include the carry through clauses specified in the grant agreement (drug free workplace, debarment, intellectual property, etc.).

3. Travel Costs

Travel costs of Awardees are allowable if they are required to conduct the research and are reasonable for a small grant effort. Conference travel is allowable if it occurs towards the end of a project for the purpose of presenting a paper on the results of the research. Applicants should consider cost sharing conference travel in excess of $1500 or risk having the travel deleted from the budget. For travel to be reimbursed it must occur within the term of the project as specified on the grant agreement. The purpose

of each travel trip must be specified in the budget narrative that is attached to Form D. Reimbursement of travel expenses will be in accordance with the guidelines contained in the grant agreement.

4. Facility Lease/Modification

The cost of leasing or renting commercial workspace is acceptable, however, individuals cannot charge rent for any portion of their private residence and a business that charges an indirect rate cannot charge a lease expense for space or equipment that they already own. EISG grant funds cannot be used to fund construction or facility improvements. However, rearrangement and alteration costs to adapt space or utilities within a completed structure to accomplish the objective of the grant-supported activity, that do not constitute construction, and aggregate to less than $10,000, may be allowable provided that the requirement is clearly defined in the budget narrative.

5. Equipment Rental or Lease

The cost of renting or leasing equipment is allowable provided the charges are reasonable.

6. Major Equipment Purchase and Disposition (unit cost of $5,000 or more)

Within the EISG Program, major equipment is defined as non-expendable, tangible property which has an acquisition cost of $5,000 or more per unit. All major equipment that applicants intend to purchase with grant funds must be included in the budget and itemized in the budget narrative that is attached to Form D (Proposed Budget Summary). All equipment with a unit cost of $5,000 or more will be purchased exclusively by the EISG Program Administrator and will be subject to the following terms and conditions:

(a) Title to all non-expendable equipment purchased with EISG Program funds shall remain with the State of California (California Energy Commission).
(b) The Awardee shall assume all responsibility for maintenance, repair, destruction and damage to equipment while in the possession of or subject to the control of the Awardee (costs for maintenance and insurance may be borne by the grant).

Major equipment purchases will be considered allowable as direct costs provided the equipment is:

(a) Necessary for completing the primary objectives of the grant research.
(b) Renting or leasing the equipment at lower cost was not an option.

Upon completion of the project or termination of the grant contract, the Commission may:

(a) Request that such equipment be returned to the Commission with any costs incurred for such return to be borne by the Commission.
(b) By mutual agreement, permit the EISG Program Administrator or Awardee to purchase such equipment for an amount not to exceed the residual value of the equipment as of the date of termination of the grant agreement.
(c) Transfer ownership of equipment to the EISG Program Administrator, an academic institution or the Awardee. If an Awardee desires to obtain ownership of the equipment a request must be submitted at the end of the project that includes a description of how the equipment in question would be used to further energy research.

7. Final Report

The final report is a $5,000 fixed price item and is already listed on the budget form. The Program Administrator will pay $3,000 upon delivery of an acceptable draft report and $2,000 balance upon delivery of the final report and any outstanding deliverables. The $5,000 cannot be cost shared.

8. Materials, Supplies, Equipment and Miscellaneous Expenses

Standard materials, supplies, equipment and miscellaneous expenses are allowed that are typical for a grant research project. This budget line is used to identify all remaining expenses that are not covered by the other budget lines. Line 3.f.(1) should be used to consolidate all small expenses with a unit cost less than $100.

General-purpose equipment (i.e., computers, printers, furniture, test equipment, tools, software) may be rented but not purchased unless renting is more expensive or not practical. In those instances where a case can be made for purchasing general-purpose equipment, provide the rationale in the budget narrative. General-purpose equipment that is purchased must be listed as a deliverable on Form C. Disposition of general purpose equipment at the end of the project will be determined by the Program Administrator. General-purpose equipment such as computers that are needed for performing experimental functions such as data logging may be purchased and need not be listed as a deliverable.

K. Indirect Costs

Small businesses, non-profits and academic institutions that choose to recover indirect costs may use an established rate based on the following priority: (1st) the rate used when doing similar research for the State of California or other state government, (2nd) the rate used when doing similar research for the Federal Government, (3rd) the rate used and consistently applied to similar research contracts performed in the civilian sector. If no indirect rate has been established then a maximum indirect rate of 20% will be allowed on this grant. Excessive indirect rates that are deemed to adversely impact the quantity or quality of the research will be an evaluation consideration when scoring proposals. Organizations that have indirect rates higher than 50% can improve their competitive standing by cost sharing a portion of their indirect rate or by providing a justification in the budget narrative based on the value of the organizational resources covered by the indirect rate that directly support the project. Individuals will not be reimbursed for indirect costs. Organizations that do not claim an indirect rate and individuals may charge as a direct expense the incremental cost of obtaining the insurance coverage specified in Article XII of the Model Grant Agreement.

For the purpose of this program, general and administrative (G&A) is included as an indirect cost. Organizations claiming an indirect rate must submit a budget narrative that is attached to Form D (Proposed Budget) that explains how the indirect cost was calculated.

Part 4. GRANT AWARD AGREEMENT

A. Grant Agreement

Once a grant is approved for funding by the Commission, the EISG Program Administrator will send an award notification letter to the applicant containing the following: (a) a list of any outstanding issues that need to be resolved prior to executing the agreement; (b) request for name and address of the individual with signature authority, (c) request for insurance certificates, if applicable, and (d) guidelines for obtaining vendor bids on project equipment, if applicable. The agreement will be mailed under separate cover once all outstanding issues have been resolved and incorporated into the agreement. The agreement must be signed by both parties before work may begin or expenses reimbursed. Any requests for modifications, changes, additions, or deletions from the terms and conditions in the Model Grant Agreement must be included as part of the grant application and require written approval from the Program Administrator prior to being incorporated into the final agreement. Grant applicants are required to certify on Form B of the application that they have reviewed the standard terms and conditions contained in the Model Grant Agreement that is available for viewing and downloading from the EISG

Solicitation web page. Requests for significant modifications to the grant contract may be grounds for application rejection. The grant agreement will incorporate by reference the grant application manual, the grant application and any addenda to the application (including correspondence to or from the Program Administrator that specify modifications or restrictions). Failure to agree to the terms, conditions and requirements of the grant agreement would be grounds for withdrawing the award.

B. Grant Performance

1. Reimbursement Invoices

EISG grant funds are distributed only for reimbursement of project expenses. Invoices for reimbursement should be submitted on a regular basis to the EISG Program Administrator for periods not less than one month and not greater than every three months. Invoices must be delivered within 30 days of the end of the invoice period. Advances on grant funds will not be allowed. Reimbursement invoices submitted to the Program Administrator will be paid within 30 days of receipt, unless contested. The Program Administrator retains the right to withhold payment for the following reasons: (a) progress reports are not current; (b) the progress reports contain insufficient detail to assess Awardee's progress or (c) there is evidence of lack of performance.

Applicants must budget $5,000 as a fixed price for **all work** (labor and materials) associated with producing the Final Report. $3.000 will be payable upon delivery of an acceptable draft Final Report with invoice, the remaining $2,000 will be payable upon delivery of the corrected Final Report with a final invoice and any outstanding deliverables.

2. Deliverables

Awardee must submit all deliverables to the EISG Program Administrator as specified in Form C and the grant agreement. The minimum required deliverables include:

(a) Progress Reports: A progress report is required for every three-month interval starting from the start date on the grant agreement. Progress reports must be delivered within 30 days of the end of each reporting period.

(b) Final Report: A draft report is submitted first for review and comments (includes abstract, executive summary, main report and stages and gates assessment). The EISG Program Administrator will review the report and provide written comments and recommendations. After making the recommended changes the final report is delivered.

3. Tax and Legal Issues

If in doubt, Awardees should consult with legal and tax advisors (at the Awardee's expense) to fully understand the legal and tax obligations incurred when entering into a grant contract.

California Energy Commission Energy Innovations Small Grant (EISG) Program **GRANT APPLICATION COVER PAGE**	**FORM A**

a. Project Title: _____

b. Project Subject Area: (*Indicate the one that most applies)*

- ☐ Industrial/Agriculture/Water End-Use Efficiency
- ☐ Building End-Use Efficiency
- ☐ Renewable Energy Technologies
- ☐ Environmentally Preferred Advanced Generation
- ☐ Energy-Related Environmental Research
- ☐ Strategic Energy Research

c. Applicant Category:

- ☐ Individual
- ☐ Small Business
- ☐ Academic Institution
- ☐ Non-Profit

d. Grant Funding Requested: $_____ *(maximum allowed $75K)*

e. Proposed Project Duration: _____ *(maximum duration 12 months)*

f. Principal Investigator/Project Manager: *(serves as single point of contact for all communications)*

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

g. Proprietary/Confidential Information:

- ☐ NO – Proposal does not contain proprietary information, unrestricted distribution authorized.
- ☐ YES - Proposal contains proprietary information, restrict distribution and disclosure. *(clearly mark and label those sections that are proprietary on all copies)*

h. Application Status *(include only prior submissions on same concept)*

☐ First Submission ☐ Second Submission ☐ Third Submission

Provide the proposal number(s) assigned to prior submission(s):_____

i. Indicate Version of Grant Application Manual Used: *(date on manual cover)* _____
Applicants must use the current version of the application manual posted with the solicitation notice.

j. Principal Investigator/Project Manager Certification: To the best of my knowledge, I certify that the information contained in this grant application package is true, and discloses all requested information.

Principal Investigator/Project Manager Signature:_____ **Date**:_____

Reserved for EISG Program Administrator Use		
	Date Received	Proposal Number Assigned

FORM A
INSTRUCTIONS

Grant Application Cover Page

Item a: Project Title
Provide a title for the project that is descriptive of the proposed work.

Item b: Project Subject Area
Check the one box that corresponds to the PIER Program area that is most representative of the proposed work.

Item c: Applicant Category
Check the one box that represents the category you are applying for a grant under. The applicant categories are defined in Part I of this manual. The category marked in Item c must match the information certified on Form B.

Item d: Grant Funds Requested
Specify the amount of grant funds needed to complete the project, not to exceed $75K. All project costs must be covered by this amount (including research facilities and expertise that are requested through the EISG Program Administrator) unless the applicant or other sources are contributing funds to this project.

Item e: Proposed Project Duration
Specify how many months you need to complete the project. The project's duration cannot exceed 12 months. Include the time it takes to complete the final report after all data collection and analysis functions have been performed.

Item f: Principal Investigator/Project Manager
In most cases the PI also serves as the Project Manager. If this is not the case then list the Project Manager in item f and identify the PI on Form E (Project Personnel).

Item g: Proprietary/Confidential Information
Indicate if the proposal contains any proprietary information that requires protection. Clearly mark and label those sections that are proprietary on all copies.

Item h: Application Status
Indicate if this is your 1st, 2nd or 3rd submission of the same or similar energy concept. If this is a second or third submission provide the proposal number(s) that were assigned in the earlier solicitations (proposal number was annotated on postcard notifications). Failure to identify prior submissions and provide a resubmission summary are ground for failing initial screening.

Item i: Version of Grant Application Manual
Enter the month and year that is printed on the cover page of the Application Manual. Applicants must use the version that was posted with the current solicitation notice.

Item j: PI/PM Certification: Signature and date of Principal Investigator/Project Manager.

California Energy Commission Energy Innovations Small Grant (EISG) Program CERTIFICATIONS	FORM B

a. APPLICANT ELIGIBILITY CERTIFICATION

☐ **Individual** Must be acting independently. If employed or affiliated with an organization, applicant has authorization from the organization to pursue grant research exclusively as an individual with no rights reserved to the organization. The individual, not the organization, retains all intellectual property rights accrued from the grant project. *(if employed or affiliated with an organization or business, specify in the space below any financial interest the organization or business has in the proposed project)*

☐ **Small Business** EISG Program uses the Federal definition of small as specified in Title 13, Code of Federal Regulations, Part 121 (13 CFR § 121), Small Business Size Regulations (http://www.sba.gov/regulations/siccodes/). Size requirement varies based on type of business with the average requirement being either prior year gross receipts of $5 million or total employees cannot exceed 500. *(in the space provided below specify your SIC Code and either the number of employees or gross revenues for prior year that qualify your organization as a small business)*

☐ **Non-Profit Organization** Possess IRS tax exemption. Non-profit organizations that are already under contract to the Energy Commission to perform PIER related work outside of the EISG Program are prohibited from applying to the EISG Program.

☐ **Academic Institution** Public or private postsecondary institutions.

Item (a) Information:

b. FINANCIAL AND LEGAL CERTIFICATIONS

☐ Checking this box certifies that the Principal Investigator and any team members, organization or business participating in this proposal have reviewed the terms and conditions contained in the model agreement. If there are any terms or conditions that you cannot agree to then you must submit with the application a written request for changes to the standard terms and conditions.

☐ Checking this box certifies that the Principal Investigator/Project Manager and any organization /business participating in this proposal, have not declared bankruptcy in the last seven years.

☐ Checking this box certifies that the grant applicant acknowledges that all costs associated with proposal preparation are borne by the applicant, and that receipt of a proposal by the EISG Program Administrator does not constitute a contractual relationship with the grant applicant.

c. MULTIPLE AWARDS FOR THE SAME OR SIMILAR RESEARCH

☐ Checking this box certifies that the grant applicant acknowledges that in the event they receive an EISG grant they agree to notify the EISG Program Administrator if they enter into a concurrent contract that requires the same or similar research as proposed in this application and in this event further agrees to limit reimbursement from the EISG Program to costs that are not covered by other awards. If the applicant has previously received State or Federal funds (such as SBIR awards) to develop the proposed concept **attach a short description of the work completed and provide contact information (phone and/or email address) for the project managers at the funding agencies.**

d. CONCEPT ORIGINALITY

☐ Checking this box certifies that the grant applicant has already performed a thorough search of the existing published literature and patents and determined that the proposed concept is original.

FORM B
INSTRUCTIONS

Certifications

Item a: Applicant Eligibility Certification

You must check one of the four boxes to indicate the applicant eligibility criteria under which you are applying. Even if you qualify under more than one criteria (i.e., sole proprietor vs. individual), indicate the one that best fits your situation. Different categories have different restrictions (i.e., ability to invoice indirect expenses and ownership of intellectual property) to which the applicant will be held. Provide the additional information requested (SIC codes, number employees, gross revenues etc.) in the space provided. Fraudulent misrepresentation of eligibility is grounds for immediate termination of award.

Item b: Financial and legal Certifications

If all three certifications are not checked you must indicate on a separate page the reason you cannot provide the certification and attach it to Form B. Not being able to provide the first two certifications (agree to all terms and conditions in model agreement and no bankruptcy in last 7 years) does not result in automatic disqualification. Proposed modifications to the terms and conditions will be considered within narrow limits as well as information that indicates proven financial responsibility since bankruptcy (references on other contractual work successfully completed). Any proposed modifications to the agreement's terms and conditions must be submitted with the grant application for review and requires written approval from the Program Administrator. The model grant agreement is available for viewing and downloading from the EISG solicitation web page www.energy.ca.gov/contracts/smallgrant/index.html.

The third certification regarding proposal preparation costs and contractual relationship is not negotiable and must be certified in order to qualify.

Item c: Multiple Awards for Same or Similar Research

This certification prohibits applicants from seeking reimbursement from more than one funding source for the same work and must be certified in order to qualify. Applicants must disclose if they have previously received State or Federal funding for work related to the EISG proposal. Prior performance will be an evaluation consideration.

Item d: Certification of Concept Originality

This certification is to ensure the grant applicant has performed a reasonable search of the published literature and patents to determine that the proposed concept is original. University and public libraries can assist in performing searches of relevant research databases of journals and trade publications. Some databases, such as the one maintained by the U.S. Patent Office (www.uspto.gov) can be researched on-line through the Internet. The EISG program page on the web provides a link titled "Applicant Internet Resources" that provides links to many Internet sites that may be of value in establishing a concept's originality.

Note: The EISG Office is in the process of expanding its list of web resources that would be of value to the typical grant applicant and would welcome any suggested sites. Send your suggestions via email to the EISG Program Administrator.

California Energy Commission
Energy Innovations Small Grant (EISG) Program
PROJECT SCHEDULE / DELIVERABLES

FORM C

SCHEDULE / MILESTONE CHART

TASKS AND MILESTONES	MONTHS AFTER AWARD											
	1	2	3	4	5	6	7	8	9	10	11	12
Progress Reports												

List all primary tasks, subtasks and milestones in the order of accomplishment to include Progress Reports and Final Report.
Block out timeframe allocated for completion of each task.

CONTRACT DELIVERABLES CHART

DELIVERABLES	MAA*	DESCRIPTION
1. Progress Reports (required)	**	In accordance with Exhibit C in model grant agreement.
2. Final Report (required)		In accordance with Exhibit D in model grant agreement.
3.		
4.		

** MAA = Months After Award*
*** Since more than one progress report will be delivered, use the schedule to indicate when they will be delivered..*

FORM C
INSTRUCTIONS

Project Schedule/Milestone Chart

Schedule

Use the first line of the schedule to show when the progress reports will be submitted. The maximum allowed reporting interval is three months followed by a 30 day period in which the report must delivered after which it will be considered in default. For example, if you have a 12-month project and plan on 3-month reporting intervals you would show in line one of the schedule progress reports being submitted in months 4, 7 and 10.

- List the major tasks, subtasks and milestones in the order in which they occur.
- Block out the timeframe allocated for each task using XXXs or shading.
- Use an asterisk ✱ or to represent milestones such as decision points and deliverables.
- Use the last line of the schedule to show when the Final Report will be submitted. The Final Report must be submitted within the term of the grant agreement. Build into the schedule a 4-week period for the EISG Program Administrator to review a draft of the Final Report prior to formal submission. PI needs to allocate sufficient time within the requested project term to write the Final Report.

Deliverables

- Progress reports are a required deliverable and must be projected on line 1 of the schedule.
- The Draft Final Report and Final Report are required deliverables and must be projected on the schedule.
- Other deliverables may include prototypes, software modules, or general use equipment (such as office computers and application software) that you plan to purchase with grant funds. General use equipment is generally not authorized for purchase unless purchasing is more cost effective than renting or leasing. Prototypes that have concept demonstration value and are of reasonable size and weight (can be mailed through postal system) should be listed as deliverables and annotated as either a permanent transfer or for inspection and return.

California Energy Commission
Energy Innovations Small Grant (EISG) Program
PROPOSED BUDGET SUMMARY

FORM D

PROJECT TITLE:

1. PERSONNEL SALARIES/WAGES (list last name and job title)	Total Hours	Hourly Rate	Total Wages (Hrs x rate)	EISG Funds Requested	Applicant Contributions	Other Contributions
Total Salaries/Wages:						
Total Fringe Benefits:						
Total Salaries/Wages and Fringe Benefits:						

2. CONSULTANT/CONTRACTUAL SERVICES (*itemize contracted services)*

Subtotal Consultant/Contractual Services:			

3. OTHER DIRECT EXPENSES (see instructions**)**

a. Travel (combine all travel expenses on this line)			
b. Facilities Lease/modification Expenses			
c. Equipment Rental/Use Fees			
d. Major Equipment Purchases (for items costing over $5,000)			
e. Final Report (fixed price item)	$5,000	N/A	N/A
f. Materials/Supplies/Equipment/Misc. (total lines f.1.– f.8.)			
(1) Total for material items with unit cost less than $100			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			
Subtotal Other Direct Expenses:			
4. TOTAL DIRECT COSTS (1 - 3)			
5. INDIRECT COSTS (see instructions)			
6. TOTAL PROPOSAL COSTS (4 + 5)			

FORM D
INSTRUCTIONS

Proposed Budget Summary

General Information:

- Reference Part 3.I. and 3.J. of the manual for general guidelines on allowable direct expenses.
- This form is available as a separate Excel file on the EISG Solicitation web page (www.energy.ca.gov/contracts/smallgrant/index.html) with the math formulas inserted.
- The proposed budget form provides columns that allow the applicant to show the project funds coming from three sources (a) grant funds, (b) applicant's contribution (i.e., cash, in kind contribution or waived indirect) and (c) any other third party sources from which the applicant has received a financial commitment.
- Attach a budget narrative to this form if budget entries are made in lines 3.a – 3.d.
- Note that the Final Report is a $5,000 fixed price item and that all labor and costs associated with the Final Report preparation are included in that price and should not be broken out in other parts of the budget. This item cannot be cost shared.

1. **Personnel Salaries/Wages:**
   - List the last name and functional job title for each team member.
   - Fringe benefits may be added as long as they are not already included in the listed hourly rate or included in the indirect costs. Individual applicants cannot claim fringe.
2. **Consultant/Contractual Services**
   - There are no restrictions on whom an applicant can subcontract with or how much work may be subcontracted out provided the subs satisfy the applicable clauses in the grant agreement.
3. **Other Direct Expenses**
   - For travel, facilities lease, equipment rental and major equipment purchase enter a single total amount for each line on Form D and provide an itemized breakdown in the budget narrative.
   - The materials/supplies/equipment/misc. line includes all remaining expenses. Total all material expenses with a unit cost less than $100 and enter on line 3.f.(1). Break out the remaining expenses with a unit cost greater than $100 on lines 3.f.(2) – 3.f.(8). Total lines 3.f.(1) – 3.f.(8) on line 3.f.
   - If you are an organization that is not claiming an indirect rate or are an individual you may itemize the added cost of obtaining the insurance coverage mandated in Article XII of the Model Grant Agreement as a direct expense under the materials line.
4. **Total Direct Costs** *(Total subtotals from items 1-3)*
5. **Indirect Costs**
   - Not applicable for Individuals.
   - Small businesses, non-profits and academic institutions that choose to recover indirect costs may use an established rate based on the following priority: (1st) the rate used when doing similar research for the State of California or other states, (2nd) the rate used when doing similar research for the Federal Government, (3rd) the rate used and consistently applied to similar research contracts performed in the civilian sector. If no indirect rate has been established then a maximum indirect rate of 20% will be allowed on this grant. Indicate in the budget narrative how the indirect cost was calculated. Excessive indirect rates that are deemed to adversely impact the quantity or quality of the research will be an evaluation consideration when scoring proposals. Organizations that have indirect rates higher than 50% can improve their competitive standing by cost sharing a portion of their indirect rate.
   - For the purpose of this program, G&A is considered an indirect cost.
6. **Total Proposal Costs**
   - First column total represents the requested grant amount and cannot exceed $75,000.

Note: Bold blocks represent budget amounts tracked for accounting purposes if the grant is awarded.

California Energy Commission Energy Innovations Small Grant (EISG) Program **PROJECT PERSONNEL**	**FORM E**

- Provide a brief summary of qualifications for each member of the project team for which a resume is not provided (resume required for Principal Investigator/Project Manager).
- Describe what contribution each team member will make to the proposed project.

1) Principal Investigator/Project Manager Name: _____

2) Investigator/Team Member Name: _____ Position: _____

3) Investigator/Team Member Name: _____ Position: _____

4) Investigator/Team Member Name: _____ Position: _____

***** *If more than four investigators, use additional pages and attach to this form*

FORM E
INSTRUCTIONS

Project Personnel

General Information

- If there are more investigators than the form can accommodate, use additional pages and attach to the form.

- The Principal Investigator/Project Manager must provide a resume (2-page maximum), which will be used to assess their qualifications (e.g., education, experience, relevant publications, etc.). If the positions of Principal Investigator and Project Manager are being performed by separate individuals then resumes will be required for both positions. Resumes on additional team members are optional but desired. Attach all resumes to this form.

Item 1: Specify the name of the Principal Investigator followed by a summary of the primary tasks to be performed by the PI and the percentage of time that will be devoted to the project.

Items 2 – 4:

Provide the name and position title of each team member/investigator that will be assisting the PI in the performance of the project. Provide a summary of qualifications for each investigator for which a resume is not provided and indicate the primary tasks they will be responsible for and the percentage of time they will devote to the project.

California Energy Commission Energy Innovations Small Grant (EISG) Program **STAGES & GATES ASSESSMENT**	**FORM F**

a. After reviewing the Stages and Gages background document, use the Development Assessment Matrix below to chart both where you are currently in the development of the proposed technology and where you plan to be if you were awarded a grant and successfully completed the project objectives. We recommend that you use solid shading to reflect activities already completed, a diagonal pattern to show work to be completed with EISG funds and a crosshatch pattern to show any work to be cost shared by the applicant or third parties (only show cost shared activities that will be completed during the term of the EISG grant project). Be aware that some activities such as market surveys, patent applications and commercialization activity cannot be funded with EISG grant funds and must be cost shared if that work is projected to be completed during the term of the grant project. The result should be a horizontal bar chart.

The EISG program is designed to primarily assist in the development of projects through Stage 3 with the highest priority being the "Engineering/Technical" activity where technical feasibility of the core technology is established through physical testing. For proposals to pass initial screening they need to show evidence of having substantially completed development activities associated with Stages 1 and 2 and to the extent that Stage 3 activities are projected to be completed at the end of an EISG grant project will make the proposal more competitive.

Development Assessment Matrix

Stages / Activity	1 Idea Generation	2 Technical & Market Analysis	3 Research	4 Technology Develop-ment	5 Product Develop-ment	6 Demon-stration	7 Market Transfor-mation	8 Commer-cialization
Marketing								
Engineering / Technical								
Legal/ Contractual								
Risk Assess/ Quality Plans								
Strategic								
Production. Readiness/								
Public Benefits/ Cost								

Legend:	
Completed Work	
Projected EISG Funded Work	
Projected Applicant Contribution	

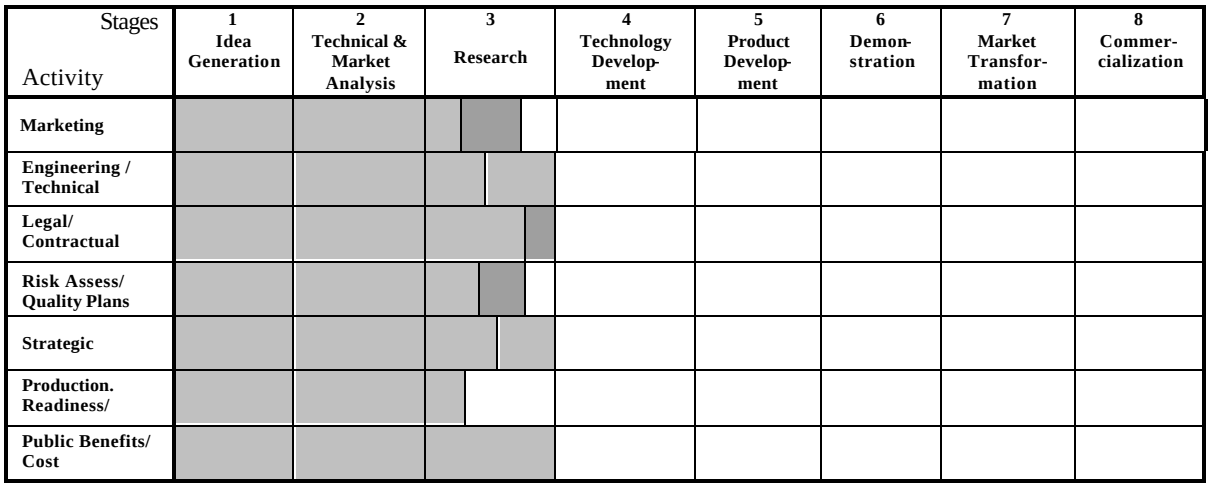
b. Attach to this form a one page supporting document that lists in outline form the seven development activities that appear in the left side of the Assessment Matrix and provide bullet statements for each activity that identifies the specific actions that have been completed to date that support the rating shown in the matrix.

FORM F
INSTRUCTIONS
Stages and Gates Assessment

Item a: A sample Assessment Matrix is provided below to illustrate what the bar chart should look like when completed. Note: The legend and shading do not display correctly in the PDF file.

Development Assessment Matrix

(Sample)



Stages / Activity	1 Idea Generation	2 Technical & Market Analysis	3 Research	4 Technology Develop-ment	5 Product Develop-ment	6 Demon-stration	7 Market Transfor-mation	8 Commer-cialization
Marketing								
Engineering / Technical								
Legal/ Contractual								
Risk Assess/ Quality Plans								
Strategic								
Production. Readiness/								
Public Benefits/ Cost								

Note: Alternative coding strategies are acceptable provided the legend is modified to reflect the coding used. If you downloaded the MS Word version of the Grant Application Manual you can manipulate the Assessment Matrix chart using the MS Word table functions. Cells can be selected and then shaded using the "Format" pull down menu and selecting "Borders and Shading". If you want to further divide a cell to show less than 100% complete you can use the "Draw Table" function to further divide the cell. Once the cell is divided with a new line you can drag the dividing line to the desired position. To reset a dividing line that locks onto the line in an adjacent cell you need to select the entire cell and select "Merge Cells" in the Table pull down menu. Then select "No Fill" on the shading pull down menu. Then select the Draw Table function under the Table menu and draw a new dividing line in the desired cell. Dividing lines in adjacent cells may need to be temporarily dragged away from the location you want to draw a line for the line to take after which the lines can be dragged to the desired location.

Item b. The attached supporting sheet needs to itemize in outline form all development work that has been completed to date in support of the seven development activities listed in the Assessment Matrix. List all specific actions for which there is documented evidence of having completed the work such as market surveys, patent applications, intellectual property assessments, business plans etc. To show credit for the Public Benefits section you need to have identified and quantified the potential public benefits that are possible if the development effort is successful. The public benefits calculations need to be updated at each stage to incorporate any new information generated that impacts the public benefits calculations.

California Energy Commission Energy Innovations Small Grant (EISG) Program **RECOMMENDED REVIEWERS**	**FORM G**

The grant applicant has the option to recommend technical reviewers that they would like the EISG Program Administrator to consider when deciding which technical reviewers to use for evaluating their proposal. The Program Administrator retains final decision authority on selecting reviewers.

First Recommendation

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

Indicate why you consider this individual qualified in the subject area proposed.

Second Recommendation

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

Indicate why you consider this individual qualified in the subject area proposed.

Third Recommendation

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

Indicate why you consider this individual qualified in the subject area proposed.

FORM G
INSTRUCTIONS

Recommended Reviewers

General Information:

- This form is optional.

- The intent of this form is to assist the Program Administrator in identifying potential qualified technical reviewers for proposals. Of particular interest are individuals that possess expertise in very narrow and specialized areas of technology that the typical technical reviewer of energy research may not be familiar with.

- Do not recommend individuals that would have a conflict of interest in reviewing your proposal or would even give the appearance of conflict of interest or bias.

- The EISG Program Administrator retains the final authority to select the technical reviewers.

California Energy Commission Energy Innovations Small Grant (EISG) Program **Recommended Reviewer Disqualification**	**FORM H**

The grant applicant has the option to recommend that specific individuals or organizations not be used as technical reviewers. You cannot disqualify Federal Labs or Universities that have known expertise in the area proposed. If this is a resubmitted proposal you can identify reviewers we used to evaluate your prior submission by providing the proposal number assigned to the proposal and the designation TR1-TR5 that was noted on the technical evaluation form. Must provide justification for disqualification. The Program Administrator retains final decision authority on selecting reviewers.

First Recommendation

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

Indicate why you believe this individual/organization should not serve as a technical reviewer.

Second Recommendation

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

Indicate why you believe this individual/organization should not serve as a technical reviewer.

Third Recommendation

Name:	Address:
Phone: Fax:	
Email:	
Organization:	
Position/Title:	

Indicate why you believe this individual/organization should not serve as a technical reviewer.

SAMPLE NON-DISCLOSURE FORM USED BY EISG PROGRAM

It is the responsibility of the EISG Program Administrator to safeguard all confidential/ proprietary information contained in documents submitted to the EISG Program. To fulfill this responsibility, the Program Administrator requires all personnel who process, screen, and review EISG Program documents (pre-proposals, proposals, final reports) that contain confidential information, to complete a non-disclosure agreement with the Program Administrator.

By signing this agreement the Program Administrator (hereafter referred to as the PA) and the program support personnel granted access (hereafter referred to as the RECIPIENT) agree to abide by the following terms and conditions.

1. PA's Obligation: The PA agrees to clearly identify those documents containing confidential/proprietary information and to identify those sections within the documents that are considered confidential/proprietary by the grant applicant which may include any or all of the following: data, materials, designs, concepts, processes, samples, specifications and financial or business information.

2. RECIPIENT' Obligations: RECIPIENT agrees to take all such precautions as may be reasonably necessary to prevent the disclosure of all confidential/proprietary information contained in EISG Program documents. In addition, the RECIPIENT agrees to the following:

(a) Shall not make or retain copies of confidential information contained in EISG Program documents (excluding the EISG Program Administrator).
(b) Shall not disclose confidential information to any third party unless the disclosure is necessary in the performance of their EISG Program responsibilities, in which case, the new RECIPIENT granted access must also sign a non-disclosure agreement.
(c) Shall not use the confidential information for personal benefit.

3. Limitation on Obligations: The obligations specified in section 2 above do not apply to information that meets the following conditions:

(a) Information already known or independently developed by the RECIPIENT (in documented form) prior to this disclosure by the PA.
(b) Information previously published or in the public domain.
(c) Information that becomes public knowledge or is legally disclosed by third parties after this agreement is executed.

4. The term of this agreement shall be five (5) years from the date of access to any EISG Program document containing confidential/proprietary information.

5. This agreement shall be governed and construed in accordance with the laws of the State of California.

AGREED AND ACCEPTED BY

RECIPIENT	**EISG PROGRAM ADMINISTRATOR**
Signature & Date:	*Signature& Date:*
Printed Name:	*Printed Name*:
Address:	*Address*:
Document Covered By This Agreement:	